16. (New) The method of claim 15, wherein said measuring is performed at each of a plurality of equally spaced measuring points arranged in at least one line corresponding to the essentially one-dimensional sensor array.

17. (New) The method of claim 15, wherein said measuring is performed simultaneously at each of a plurality of equally spaced measuring points arranged in at least two generally parallel lines spaced apart by a distance different from the distance separating the measuring points, wherein the measuring points of one line are shifted with respect to the measuring points of the next line, and wherein said generating is performed from measurements performed at one of the at least two lines.

18. (New) A method of sensing a fingerprint comprising:

applying a varying voltage to a finger positioned over an electrode; and

measuring the capacitance or impedance between the electrode and a capacitive sensor array through a fingerprint surface positioned over both the electrode and the capacitive sensor array, wherein the capacitive sensor array is separately disposed from the electrode and the capacitive sensor array is adapted to detect variations in capacitance or impedance across the array caused by structural features of a portion of the fingerprint surface positioned over the array.

19. (New) The method of claim 18, further comprising forming a two-dimensional image representative of the structural features of at least a portion of the fingerprint surface using the variations in capacitance or impedance detected in said measuring step.

20. (New) The method of claim 18, further comprising:

generating a plurality of images of different portions of a fingerprint surface by measuring structural features of the fingerprint surface at given intervals of time with a sensor array as the fingerprint surface is moved relative to the sensor array;

ascertaining the speed of movement of the fingerprint surface relative to the sensor array at each of the given intervals of time by sensing structural features of the fingerprint surface moved over two sensing elements spaced apart by a predetermined distance and determining the speed from

the predetermined distance and a time lapse between passage of identical structural features of the fingerprint surface from one of the two sensing elements to the other; and

using the ascertained speed to determine the required relative positioning of at least a portion of the plurality of images to form a two dimensional image of the fingerprint surface larger than any one of the plurality of images.

21. (New) A method for sensing a fingerprint comprising:

generating a plurality of images of different portions of a fingerprint surface by measuring structural features of the fingerprint surface at given intervals of time with a sensor array as the fingerprint surface is moved relative to the sensor array;

ascertaining the speed of movement of the fingerprint surface relative to the sensor array at each of the given intervals of time by sensing structural features of the fingerprint surface moved over two sensing elements spaced apart by a predetermined distance and determining the speed from the predetermined distance and a time lapse between passage of identical structural features of the fingerprint surface from one of the two sensing elements to the other; and

using the ascertained speed to determine the required relative positioning of at least a portion of the plurality of images to form a two dimensional image of the fingerprint surface larger than any one of the plurality of images.

22. (New) The method of claim 21, wherein one of the two sensing elements comprises a sensor in the sensor array.

23. (New) The method of claim 21, wherein each of the two sensing elements is disposed in a different one of two groups of sensing elements arranged in two spaced-apart, generally parallel lines of sensing elements.

24. (New) A method for sensing a fingerprint comprising:

applying a varying voltage to a finger positioned over an electrode;

measuring the capacitance or impedance between the electrode and an essentially one-dimensional capacitive sensor array through a fingerprint surface positioned over both the electrode and the capacitive sensor array, wherein the capacitive sensor array is separately disposed from the electrode and the array of capacitive sensors is adapted to detect variations in capacitance or impedance across the array caused by structural features of a portion of the fingerprint surface positioned over the array;

generating a plurality of images of different portions of a fingerprint surface by measuring structural features of the fingerprint surface at given intervals of time with the capacitive sensor array as the fingerprint surface is moved relative to the sensor array in a direction that is generally perpendicular to the sensor array;

ascertaining the speed of movement of the fingerprint surface relative to the sensor array by sensing structural features of the fingerprint surface moved over two sensing elements spaced apart by a predetermined distance and determining the speed from the predetermined distance and a time lapse between passage of identical structural features of the fingerprint surface over the two sensing elements;

using the ascertained speed to determine which of the plurality of images overlap or partially overlap others of the plurality of images;

disregarding those images which overlap or partially overlap one or more other images; and

constructing a two-dimensional image of the fingerprint surface from only non-overlapping images obtained from said generating step.

25. (New) An apparatus for sensing a fingerprint comprising:

an essentially one-dimensional sensor array and associated circuitry constructed and arranged to generate a plurality of images of different portions of a fingerprint surface by measuring structural features of the fingerprint surface at given intervals of time as the fingerprint surface is moved relative to said sensor array in a direction that is generally perpendicular to said sensor array;

at least one pair of sensing elements, where the sensing elements in each pair are spaced apart by a predetermined distance and are constructed and arranged to sense structural features of the fingerprint surface moved over said two sensing elements of each pair, to determine a time lapse

between passage of identical structural features over one sensing element and then the other, and to determine the speed of movement of the fingerprint surface relative to the sensor array from the predetermined distance and the time lapse;

means for determining which of the plurality of images overlap or partially overlap others of the plurality of images from the speed determined by said two sensing elements and to disregard those images which overlap or partially overlap one or more other images; and

means for constructing a two-dimensional image of the fingerprint surface from only non-overlapping images generated by said sensor array.

26. (New) The apparatus of claim 25, further comprising an electrode and associated circuitry constructed and arranged to apply a varying voltage to a finger positioned over said electrode, wherein said sensor array is separately disposed from said electrode, and wherein said sensor array is a constructed and arranged to measure the capacitance or impedance between said electrode and said sensor array through a fingerprint surface positioned over both said electrode and said sensor array and to detect variations in capacitance or impedance across said array caused by structural features of a portion of the fingerprint surface positioned over said array.

27. (New) The apparatus of claim 25, wherein one of the two sensing elements of each pair comprises a sensor in the sensor array.

28. (New) The apparatus of claim 25, wherein each of the two sensing elements of each pair is disposed in a different one of two groups of sensing elements arranged in two spaced-apart, generally parallel lines of sensing elements.